

ENTERPRISE ARCHITECTS, INC.

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EAP IS FUNDAMENTALLY DIFFERENT FROM CONVENTIONAL SYSTEMS PLANNING (AND BETTER!)

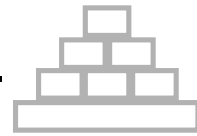
	Conventional Systems Planning	Enterprise Architecture Planning
Prime Directive	Satisfy specific “user” (executive) requirements a.s.a.p.	Provide maximum value to the total enterprise over time
Basis for Decisions	System requests, problems, or critical success factors	Complete, consistent, and stable business model knowledge base
Decision Making Process	Criteria change frequently; subjective opinions, bias	Measurable <u>objective</u> criteria; <u>credible facts</u> and <u>logic</u>
Acceptance Decision	Opinions formed at the end	<u>A Priori</u> criteria agreement asap
Planning Team Members; Source of Information	Most steps only ITM; Limited to bus execs & mgrs	Business and ITM every step; All levels, mgmt and doers
Order of Planning Phases	Systems identified first, then data to be processed (DP)	Data defined before applications and technology
View of the Business	Processes and procedures; Automating data flows	Managing business data/objects; Manage dynamics (rules/events)
Organization Benefactors	Most users limited to one organization unit	Applications and data span organizational boundaries
Applications Architecture	Few large self-contained systems (Stovepipes/Silos)	Many unique inter-dependent applications (Jigsaw Puzzle)
Sequencing Criteria	Politics, budget, and demand	Data dependency (primary), also quantitative & mandatory
Cost Justification; Funding Approach	Each system individually; Charged back to a business unit	Plan in its entirety, Funded at enterprise level like a business

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	Conventional Systems Planning	Enterprise Architecture Planning
System Structure	Interfacing (passing data files)	Integration (sharing same data)
Enterprise; Guiding Principles	Organization, product, location; Poor quality, unrati ed, unused	Value-added business; Good quality, ratified, precedences
Fundamental Value(s)	Productivity (cheaper, faster)	Quality (better)
Form of Governance	Dictatorship, elite committee, or fragmented independent units	Multi-level democracy with qualified representatives
Outlook	Operational, short term; Operational requirements	Strategic; Ultimate achievement of business goals & objectives



EAP is fundamentally different from the conventional method of systems planning employed since the beginning of business computing more than 50 years ago. Indeed, the conventional management information systems (ISM) and technology *can never* achieve the mission of providing everyone in the enterprise the information they need, whenever and wherever needed, in a useful format. Nor can it ever provide the integration, flexibility, security, integrity, and return a high value for every dollar invested. The fundamental differences which enable an organization applying EAP to accomplish what conventional systems planning can not are:

1) The prime objective of EAP is to provide maximum value to the entire enterprise

The aim of conventional systems planning has been to satisfy the requirements of particular individuals or departments who are the would-be users and owners of the systems. Those requirements are typically derived from the problems or shortcomings that the users have with their current systems. Though a decision made in the best interest of one user may have an adverse affect or be at odds with another user, planners propose systems to meet the stated wants and desires of each group of users separately, and those systems will be implemented if that the user group can afford what they have asked for. Indeed, the word “user” has so many undocumented different meanings across an enterprise that it has become a meaningless term. So, don’t say the word “user” anymore! Try the following exercise: formulate a definition for the word “user” that (a) would mean *exactly* the same thing in every business context when anyone said it, and (b) would provide credible objective precise facts for making decisions. Rule: you cannot have any form of the word “use” in your enterprise-wide definition of “user.” This may prove to be more of a challenge than expected.

However, in EAP the prime directive is to maximize the total value (benefit less cost) to the enterprise. The EAP team members are people from the business who represent the interests of the entire enterprise. Working together with IS&T architects, the team will consider the overall impact of every decision to the entire business, not merely for one or two budget cycles, but typically to provide maximum value over the entire planning horizon which is typically five years or perhaps more. Popular ads for Fram Oil Filters has an auto mechanic saying “pay me now, or pay me later”. When faced with a decision to spend big bucks in the upcoming budget cycle, or put off that expense even if it means having to spend far more in a future period, the conventional approach to systems would be to put off that expense and “cross that bridge when we come to it.” By making decisions that result in the maximum total value to the enterprise over time will mean that future managers (perhaps different people) will not look back and lament “if only we had paid to do this back then.”



2) Architectures are founded on a business model knowledge base

A business model is a knowledge base of what the business is, and what information is used to conduct the business. The conventional approach to systems planning does not create a “big-picture” definition of the entire business prior to proposing systems. Rather, it usually has a group of technical systems analysts who walk into an executive's office, sit down, and ask, “What *systems* do you want?” There other are conventional variations of this question, for example, instead of asking “What systems do you want?” the question may be “What information do you need,” or “What are your critical success factors?” The answers are usually interpreted as what is most “important” to those executives and influences the priorities for sequencing the plan. However, what is important today may not be in five years, in two years, or even in a few months. The consequence of these questions is the same -- information systems that address short-term requirements, not the most cost-effective long-term plan.

EAP does not ask these questions. Instead, the questions in the learning sessions of the Enterprise Survey are “What do you do (and when)?” “Describe information you use?” “How is performance measured and what is the current performance?” and “What could improve the business?” A good business model reflects the fundamental nature of the business, and provides a *stable* foundation for defining architectures and making planning decisions. The architectures are based on the needs of business activities, not individuals, and without regard to the limitations of organizational boundaries. This is one reason that EAP is referred to as *business driven*.

3) Migration planning decisions are logical and based on objective credible facts

The criteria to formulate conventional systems plans are mostly ambiguous and subjective. When decisions are made using criteria that cannot be measured on a relative numeric scale and based on observable characteristics, the outcomes depend on the individuals participating in the decision, their personal desires, and state of mind at that time. Such plans are usually unstable, rarely remaining intact more than about a year when the planning will need to be repeated. Frequent changes to system and technology plans and directions are very costly, yet those kinds of costs are not typically included when determining the net financial benefit of a plan. In EAP, decisions are made using arithmetic measures and predictive estimates that have a consistent scale and can be independently verified. Though there are bound to be a few changes over time to a multi-year EAP migration plan, most of an EAP plan will remain intact, even though different people become involved.



4) A priori acceptance criteria agreed as soon as practical

In conventional planning, the acceptance of a plan is uncertain until the end. “Show me the plan and then I’ll decide” some executives might say believing that would be a position of control. But it is understandably difficult to get bright talented professionals to devote their valuable time contributing to an initiative whose acceptance is doubtful, or worse, subject to a quick shoot-from-the-hip opinion-based decision that ignores their recommendations and supporting facts. The business implications of having flexible integrated information systems can be accurately predicted well before the plan is completed. In EAP, an agreement with the top management decision-makers on the acceptance criteria for the plan is reached as soon as practical, sometimes as early as Planning Initiation. By systematically eliminating the potential reasons for rejection at the beginning, the EAP team is justifiably confident that the migration plan presented at the end of the project will be accepted with little contention (regardless of implementation cost/investment).

5) Architectures are jointly defined by systems and business people

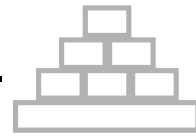
Conventional systems plans are produced by systems people and presented to business executive management for approval. Tug-of-war negotiations are not uncommon between executives over the proposals in the plan. In EAP, the architectures and plans are created by both systems and business people working together, hammering out organizational compromises that will be ultimately accepted when the plan is presented. Moreover, only executives are usually interviewed for conventional systems planning, whereas in EAP, all levels of business people are interviewed in the Enterprise Survey.

6) Enterprise Architecture Planning defines data before applications

This is the complete reverse of the way planning is done conventionally where the first step is to determine what functionality is required for systems and which reports are requested, thereafter the second step is to design the data needed to be processed (whence the original name for the discipline -- Data Processing). With EAP, however, the first architecture defines the data and its usage to support the enterprise. When that is completed, the second architecture defines the applications needed to manage that data. Understand the basic product – data – before designing procedures to manufacture the product.

7) EAP views the business as an integrated set of business objects and activities

The methods and techniques for building conventional systems automate business processes and procedures often consisting of a complex complicated sequences of activities commencing with the initial step performed through the outcome of the last step. Conventional systems are designed by the flow of data through the automated processes.



EAP first seeks to fundamentally understand what things mean separately from how things work, and then formulate flexible systems that manage change rather than constantly changing to manage processes. Data flow diagrams are not used for architectures because in EAP data doesn't flow through specific processes— data is shared by every business function.

8) Applications will span organizational boundaries

The systems in a conventional plan generally support a single organizational unit or group of users - Sales, Operations, Distribution, Customer Service, Human Resources, Finance, etc. In EAP, applications manage data and support business functions without regard to who uses that data or performs those functions. Thus, many applications will span organizational boundaries directly supporting multiple organizational units. This may raise an issue about the allocation of development costs.

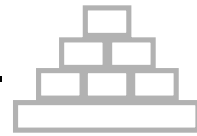
9) EAP applications do not resemble conventional systems

A conventional systems plan typically contains a few huge systems, each addressing most of the requirements for a particular organization unit or business area. Legacy systems planned in the conventional manner are often called stovepipes, silos, or islands underscoring their self-containment or lack of integration. On the other hand, the applications architecture in EAP contains many applications whose scope is usually limited to managing only one kind of data or supporting a few business functions. Like the pieces of a jigsaw puzzle, each application is unique and fits together only in one way with the other applications to form a complete picture of information management for the enterprise.

10) EAP uses data dependency to determine the implementation plan

In the conventional approach to systems planning, after the answering the question "What systems are needed to achieve your objectives?" the systems analysts will typically ask "How important is that application to you?" or "Whose systems should be implemented first?" As an example, the answer may be, "the president's executive information system should be implemented first." After all, it is the president who has ultimate control of the budget, holds the most visibility, and commands the highest political power. So, the president's request is accommodated first, often followed in priority by systems for those in descending positions of influence. Also note how the pronouns in those questions keep the focus on the user rather than the business activity.

The EAP approach sets priorities differently. In this approach, it is the *data dependency* that will determine the ideal sequence in which applications should be implemented. Data dependency is based on a fundamental precept which says we should develop the applications that *create* data *before* the applications that need to *use* that data. On paper, this seems like common sense and is hard to refute, yet data dependency is not



an important consideration in the conventional approach to I.S. planning, in part because each huge system is self contained, managing its own data. In EAP, data dependency is the primary criterion used to sequence applications, and hence, it drives the implementation plan – thus EAP is sometimes called *data-driven planning*. Generally, a sequence based solely on data dependency will have the lowest implementation cost.

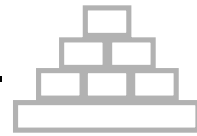
This kind of sequence is easily understood by examining how a jigsaw puzzle is assembled. Where does one begin? The corner and edge pieces are pieced together first into a frame. Then, using the picture on the box as a guide, pieces that appear similar are assembled and attached to the frame. Data dependency in EAP applies the same logic for “assembling the pieces” of the applications architecture. Applications creating data are like the corner and edge pieces that come first. The architectures are like the picture on the box, serving as a guide to assembling the migration strategy.

11) The plan from an EAP is cost-justified in its entirety, and cost is not an issue

The self-contained systems in a conventional plan are individually cost justified. Systems with a low cost benefit or lengthy break-even point are usually rejected or indefinitely postponed. Those with the highest pay-back will be among the first to be implemented. However, in EAP, every application is unique and every “piece of the puzzle” is needed to have a complete picture. Though the cost and benefit of individual applications may be estimated by the EAP team, only a single cost-benefit figure is presented for the plan. The plan will either be accepted in its entirety, or rejected. By following the prime directive of maximizing the benefit to the enterprise in every phase of well-managed EAP, the total monetary benefit going directly to bottom-line business profit over the planning horizon will be so enormous that implementation cost will not be an issue. Most corporate mission statements use words like profit, value, and cost-effective, and the same values apply for the internal Information and Technology Management function necessary for achieving the corporate mission.

12) The level of integration and quality from EAP is unattainable conventionally

Systems in a conventional plan rely on costly interfaces to exchange data. In EAP, integration is achieved by sharing data, not by moving copies of the data from system to system.



13) Good quality principles are ratified, and precedence history maintained

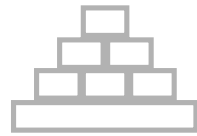
Principles are the fundamental “rules of the game” and enable consistent decisions to be rendered, like the Bill of Rights to the US Constitution. Principles for managing the information of the enterprise are derived from the business values (accepted beliefs), like our constitution and rights stem from the values “life, liberty, and the pursuit of happiness.” Good principles are comprehensible, complete, consistent, robust, and enduring. (How many words in the Bill of Rights have changed in 200+ years?) Without good principles, enterprise architectures and migration plans rapidly deteriorate (short shelf-life!). Like the states that ratified the US Constitution, each business area must explicitly indicate their acceptance of the principles. Ratification is always a challenge. However, long delays often indicate an underlying lack of resolve to actually succeed.

14) The level of integration and quality from EAP is unattainable conventionally

Conventional plans emphasize productivity to achieve the benefits whereas the driving force of EAP is quality. Though executives may say “Better, Faster, Cheaper,” their actions and decisions are based on Cheaper and Faster, with little or no consideration to be Better and “get it right the first time.”

15) EAP establishes an on-going governance for integration and quality

The planning decisions for managing information and technology in most organizations are conventionally made by a single business executive (dictatorship) or a committee comprised of the top-most elite executives (cartel). In some multi-divisional organizations, each organization can make their own decisions independently. Integration, flexibility, sharing, and quality can only be achieved and maintained in organizations (1) that apply a good set of principles, policies, and standards equally to everyone, (2) that resolve disputes consistently and equitably, (3) that base information and technology management decisions on objective facts and are made by the most knowledgeable and capable people, and (4) that considers the requirements of every person are represented when making architecture and planning decisions. There may be executives who believe that being in control of information and technology decisions gives them the freedom when in reality it is an anarchy that prevents an enterprise from achieving its full potential. Only through enterprise-wide governance of information and technology do people have the freedom to make good business decisions that have the best chance of ultimately being the right ones, or alternatively, avoiding bad decisions.



16) EAP can achieve strategic long-term benefits

Conventional plans are generally focused on short term operational needs. Indeed, many systems plans merely serve as the annual budget for the I.S. organization. The time horizon for EAP may be five years or longer, and sacrifices may be made in the short term to achieve far greater benefits over the long term. Quality, according to Deming, is a long term commitment.

WHAT'S IN A NAME?

The words “Enterprise” and “Architecture” are gaining in popularity in names for systems planning. Arguably, one reason might be the recognition from 16,000+ copies of the *Enterprise Architecture Planning* book (first edition) and nearly 100 public seminars presented in the US, Canada, and Europe. However, merely having those words in a name for a planning project, or even following steps and employing techniques from the EAP book does not mean that the methodology is being applied as intended, nor that the aims of EAP – integration, flexibility, integrity, and value – will be achieved. Being conventional on one of the above sixteen characteristics can increase the difficulty and risk of achieving those aims. Use the sixteen characteristics to assess whether a planning approach is conventional or EAP.